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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,154	01/14/2002	Nobuya Harano	2001P005978	5070
30743	7590	03/07/2006	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190				WEST, LEWIS G
ART UNIT		PAPER NUMBER		
				2682

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/043,154	HARANO, NOBUYA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lewis G. West	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 09 December 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-3,5-12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,5-12,14 and 15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 May 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

***Response to Arguments***

Applicant's arguments with respect to claims 1-3 and 5-8 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed December 9, 2005 with respect to claims 9-12, 14 and 15 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). There are not "bits and pieces" of the prior art as suggested by applicant. For example in claim 1, applicant's invention is shown in its entirety by Mizoguchi, the only exception being that it that the antenna, which is structurally included, is not used for transmission. This is not a combination of bits and pieces but showing the obviousness of a minor difference in the primary reference and the claim, as stated in 35 USC 103(a), a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Applicant does not claim multiple two-way antennas, only transmit antennas, so arguments that the combinations do not support this limitation are moot, as applicant has no basis to argue that which is not claimed.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., multiple two-way antennas) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 9, these arguments are unpersuasive. A group of more than one antennae is referred to in the art as an "array". An array of antennae, the arranged in a group or on the same device, are still separate antenna, see col. 3 lines 66-col. 4 line 3 of Werling, where it directly and expressly states that a plurality of transmitting antennas is used and that each antenna operates from a different transmit circuit. Arguments that multiple antennas that are clearly separate is the same as one antenna is unpersuasive and unsupported by fact.

Regarding the optical sensor, it is a well-known low power device in the art that would have been known and used by one of ordinary skill in the art at the time of the invention in the art or radiotelephone handsets, and applicant has no support for arguing that the optical sensor directly measures a deterioration in any way that is different than Bowen. Applicant's specification only shows detection of light or detection of reflected light and is not a direct

measure of the antenna, so this argument is unpersuasive. Using a different sensor for the same function, in this instance, is not patentably distinct. Further, in both Bowen and the application, the issue of contact and proximity to human flesh is addressed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5, 7 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi (US 6,678,532) in view of Vannatta et al (5,649,306).

Regarding claim 1, Mizoguchi discloses a portable radio terminal device for radio communication by using an antenna provided in a housing capable of being held by one hand, wherein: a first antenna (11b) capable of transmission disposed in a lower part of the device and a second antenna disposed in an upper part of the device (11a) for radio communication, said first antenna and said second antenna being selectively switched for use (Col. 12 lines 38-47), a sensor (detecting circuit 29) for sensing when the first antenna is covered and outputting a detection signal (Col. 12 lines 17-37); and means for switching between said first antenna and said second antenna for use based on said detection signal. (Col. 12 lines 38-47) Mizoguchi does not expressly disclose that the second antenna is used for transmission. Vannatta discloses a portable radio terminal device comprising: more than one transmission antennas separately

provided and switchable located in different flaps of a foldable phone. (Col. 4 lines 41-62; Col. 5 lines 34-43) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to switch from a degraded antenna to another antenna in another section inside the housing for transmission, because although Mizoguchi's main embodiment does not describe both antenna being used to transmission, it does state, in col. 12 lines 54-59, that by using the switching circuit optimal positioning is provided resulting in an improvement in **transmission** performance, therefore providing an implicit suggestion that both antennae are capable of transmission. Further Vannatta provides the motivation to separate the antennas into different housing sections as it provides the most efficient use of a small available space to provide the necessary separation for diversity as well as providing distance from interfering electrical components. (See Vanatta col. 3 lines 31-62)

Regarding claim 2, the combination of Mizoguchi and Vannatta discloses the portable radio terminal device according to claim 1, wherein the housing is of a foldable type comprising an upper and a lower housing hinged together by a hinge part, the first and second antennas are disposed in the lower and upper housings, respectively and that both antenna may be internal. (Vannatta, Col. 4 lines 41-62; Col. 5 lines 34-43)

Regarding claim 3, the combination of Mizoguchi and Vannatta discloses the portable radio terminal device according to claim 1, wherein the first or the second antenna is predetermined to be a normally used antenna. (Mizoguchi, Col. 9 line 56-Col 10-line 9, both are "normally" used for different situations)

Regarding claim 5, the combination of Mizoguchi and Vannatta discloses the portable radio terminal device according to claim 4, wherein the sensor is a touch sensor. (Mizoguchi, Col. 6 line 42-67)

Regarding claim 8, the combination of Mizoguchi and Vannatta discloses the portable radio terminal device according to claim 4, wherein the sensor is an impedance change detecting means for detecting a change in the impedance of the antenna. (Mizoguchi, Col. 6 line 42-67)

Claims 9, 11, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werling (US 6,456,856 B1) in view of Bowen (US 5,224,151).

Regarding claim 9, Werling discloses a portable radio terminal device comprising: a plurality of transmission antennas separately provided; a detector for detecting the deterioration of an antenna characteristic; and a switch for switching, on the basis of the detected result, the operation from the deteriorated transmission antenna to a different transmission antenna. (Col. 3 line 34-col. 4 line 24) but does not expressly disclose an optical sensor. Bowen discloses a mobile radiotelephone wherein a sensor for detecting human proximity, especially the human head (see Figures 2-6) in order to change functional operation of the phone. (Col. 2 lines 10-61) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Werling to use an optical sensor to detect human proximity so that harmful radiation may be directed away from said tissue, and for optimum antenna use to prevent degradation and prevent the unnecessary use of power that can be saved by using a more desirable antenna, and infrared being an inexpensive and widely used type of sensor.

Regarding claim 11, Werling discloses to claim 9, wherein the detector detects the antenna at least a part of which is covered with a hand or is touched with a head. (Col. 4 lines 4-10)

Regarding claim 12, Werling discloses the portable radio terminal device according to claim 9, wherein the detector is a touch sensor for detecting the touch of hand or head. (Col. 4 lines 4-10)

Regarding claim 15, Werling discloses the portable radio terminal device according to claim 1, wherein a plurality of detectors is provided. (Col. 2 lines 17-24)

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi (US 6,678,532) in view of Vannatta (US 5,649,306) further in view of Bowen (US 5,224,151).

Regarding claim 6, the combination of Mizoguchi and Vannatta discloses a radiotelephone according to claim 1, but does not expressly disclose an optical sensor. Bowen discloses a mobile radiotelephone wherein a sensor for detecting human proximity, especially the human head (see Figures 2-6) in order to change functional operation of the phone. (Col. 2 lines 10-61) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Vannatta to use an optical sensor to detect human proximity so that harmful radiation may be directed away from said tissue, and for optimum antenna use to prevent degradation and prevent the unnecessary use of power that can be saved by using a more desirable antenna, and infrared being an inexpensive and widely used type of sensor.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi (US 6,678,532) in view of Vannatta (US 5,649,306) further in view of Werling (US 6,456,856 B1).

Regarding claim 7, the combination of Mizoguchi and Vannatta discloses the portable radio terminal device according to claim 4, wherein multiple measurements may be taken to determine antenna coverage (Col. 11 line 47-12 line 7), but does not disclose multiple sensors. Werling discloses the portable radio terminal device wherein a plurality of detectors is provided. (Col. 2 lines 17-24) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a plurality of sensors to provide the user the option of using sensors which are not harmful or “noxious” to human flesh. (See also Col. 2 lines 17-24)

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi (US 6,456,856 B1) in view of Bowen and further in view of Vannatta (US 5,649,306).

Regarding claim 10, the combination of Werling and Bowen discloses the portable radio terminal device according to claim 9, but does not disclose that the portable radio terminal device is a foldable type including a first housing provided with a first antenna and a second housing provided with a second housing which are hinged together by a hinge part. Narayanaswamy discloses a portable radio terminal device with switchable antennas wherein the device is a foldable type including a first housing provided with a first antenna and a second housing provided with a second antenna which are hinged together by a hinge part. (Col. 4 lines 41-62; Col. 5 lines 34-43) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have antennae in separate housing sections, to aid in antenna diversity for communication and separation of electrical components. (See Vanatta col. 3 lines 31-62)

Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Werling (US 6,456,856 B1) in view of Bowen and further in view of Mizoguchi (US 6,678,532).

Regarding claim 14, the combination of Werling and Bowen discloses the portable radio terminal device according to claim 9, but does not disclose a detected impedance change of the antenna. Mizoguchi discloses a portable radio terminal device wherein a detector detects an impedance change of the antenna. (Mizoguchi, Col. 6 line 42-67) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use an impedance change to detect the presence of human tissue, so that harmful radiation may be directed away from said tissue, and for optimum antenna use to prevent degradation and prevent the unnecessary use of power that can be saved by using a more desirable antenna.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Lewis West  
(571) 272-7859

*Marta D. Banks-Harold*  
MARTA D. BANKS-HAROLD  
SUPERVISORY SPECIALIST - MER  
TECHNICAL COORDINATOR - DO